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Sheet 1 of 1

Complete if Known

Application Number	10/767,483
Filing Date	January 28, 2004
First Named Inventor	Vaidyanathan
Art Unit	3753
Examiner Name	Unassigned
Attorney Docket Number	003248.00093

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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FOREIGN PATENT DOCUMENTS

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S.A		C. Bower, A. Ortega, P. Skandakumaran, R. Vaidyanathan and T. Phillips, "Heat Transfer in Water-Cooled Silicon Carbide Mill-channel Heat Sinks for High Power Electronic Applications", Proceedings of IMECE 2003, Washington, DC	
		F. Incropera, and D. Dewitt, "Fundamentals of Heat and Mass Transfer" 5 th ed., New York, Wiley, 2002, pp. 482-490.	
		R.J. Pieper and A.D. Kraus, "Performance Analysis of Double Stack Cold Plates Covering All Conditions of Assymetric Heat Loading", ASME Journal of Electronic Packaging. Vol. 20: 298-301, 1998.	
		R.J. Pieper and S. Michael, "Circuit Modeling to Predict the Performance of Force-Cooled Cold Plate Structures", Proceedings - IEEE International Symposium on Circuits and Systems, v 6, 1999, p VI-105-VI-108.	
		R.J. Phillips, 1990, "Micro-Channel Heat Sinks, in A. Bar-Cohen A.D. Kraus (Eds.)" Advances in Thermal Modeling of Electronic Components and Systems vol. 2, ASME New York Chapter 3. 1990	
		C.B. Sobhan and S.V. Garimella, "A Comparative Analysis of Studies and Heat Transfer and Fluid Flow in Micro-Channels", Microscale Thermophys. Eng. Vol. 15, pp. 293-311, 2001.	
		D.B. Tuckerman and R.F.W. Pease, 1981, "High-Performance Heat Sinking for VLSI", IEEE Electron Dev. Lett. 2, pp. 126-129, May 1981.	
		K. Vafai and L. Zhu, 1999, "Analysis of two-layered micro-channel heat sink concept in electronic cooling", International Journal of Heat and Mass Transfer, 42, pp. 2287-2297.	
		R. Vaidyanathan, J. Walish, J.L. Lombardi, S. Kasichainula, P. Calvert, K.C Cooper, "The Extrusion Free Forming of Functional Ceramic Prototypes", Journal of Metals, 52 (12), pp. 34-37 (2000).	
SA		X.J. Wei and Y. Joshi, "Stacked Microchannel Heat Sinks for Liquid Cooling of Microelectronic Components", Proceedings of ASME IMECE 2000, Florida.	

Examiner Signature		Date Considered	5/10/2006
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